Pham 347165


1: Expelliarmus_33 + 4
2: Astro_34 + 3
3: Smeadley_34
4: Phillis_34
5: KeAlli_55
6: Reedo_57
7: Snek_58 + 1
8: LookingGlass_24 + 203
9: Colt_15 + 1
10: Alice_17 + 1
11: Shifa_19 + 3
12: Stubby_20 + 1
13: Derek_21
14: Specks_25
15: QBert_20
16: Flabslab_23
17: BigCheese_68 + 24
18: Faith1_68 + 6
19: Claus_68 + 5
20: Bazzle_68
21: Gabriela_65
22: SoJulia_69
23: Rossetti_70
24: Sheng711_66 + 1
25: FarmResident_68 + 1
26: Kropertea_65
27: BrainDrainer_66
28: Douge_66
29: PYPDinur_64 + 1
30: ChutneyChips_66
31: Bromden_68
32: DyoEdafos_70
33: LilhomieP_42 + 15
34: RoseMarie_49
35: Reindeer_45
36: Estes_52
37: Rey_51
38: GardenSalsa_52 + 1
39: Aziz_50 + 1

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 347165 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347165 has 311 members, 50 are drafts.

Phages represented in each track:
• Track 1 : Expelliarmus_33, Stephig9_34, Dixon_34, Danforth_33, Roary_34
• Track 2 : Astro_34, NearlyHeadless_34, Groundhog_33, Caitlin_34
• Track 3 : Smeadley_34
• Track 4 : Phillis_34
• Track 5 : KeAlii_55
• Track 6 : Reedo_57
• Track 7 : Snek_58, Tweety19_59
• Track 8 : LookingGlass_24, McGee_21, BobaPhatt_21, OrediggerDelux_23, Kboogie_21, Asterius_23, Babyland_20, BeanWater_17, Ghost_21, ZygoTaiga_22, ChaylaJr_20, GlutenPhree_21, Chomp_20, Ava3_22, Janiyra_20, Megamind_21, Bigswole_26, Koguma_18, RoMag_16, GoldenSnow_27, Amataga_20, SoilZilla_20, EmToTheThree_24, BackyardAgain_19, Izajani_22, Matsumoto_20, Turret_20, Shnickers_20, Jessibeth14_21, MoMoMixon_23, Astraea_22, Rizal_20, IkeLoa_17, Primadonna_17, Blackbrain_20, NedWong_22, BigCity_25, Patter_20, I3_23, LifeSavor_21, FoxtrotP1_22, CharlieB_22, ArcherS7_20, Drazdys_22, Zalkecks_23, LordLeafolot_27, Phlegm_22, PurduePete_21, SrishMeg2525_21, Phox_21, Domi_16, Rabinovish_21, TinyTim_21, Montpel_21, Bangla1971_20, Teardrop_20, Bread_22, SmallFry_20, Pleione_23, ET08_18, Capablanca_22, Bowman_22, EggyFarm_25, InigoMontoya_22, Concombre_21, ChickenPhender_20, Ading_20, Atlantean_20, Bonray_21, Gizmo_23, Spud_24, NuevoMundo_25, Jaygup_20, Norm_21, Yucca_21, Belieber_19, Sprinklers_22, InterFolia_27, Lunareta_21, FrayBell_27, ParkTD_21, Darko_20, Ewok_21, Burrough_22, Ronan_17, Cali_23, PharkleMinkus_27, Fongie_21, Latch_20, Pier_23, Fixie_19, Tyke_23, Gamgam_20, Trinitium_20, Bxz1_23, Basquiat_20, Yassified_19, ScottMcG_23, Maby2021_22, Nidhogg_23, Daffodil_23, Breeniome_21, Adlitam_20, JustHall_20, Salacia_23, Gabriel_21, Jedediah_21, YemiJoy2021_22, Blackdragon_18, Zeenon_24, Tainan_27, Delilah_21, Puhon_27, JigglyPuff_22, Kamryn_20, Dessert_21, Dandelion_25, StubbySaigey_21, FudgeTart_22, Sauce_23, CindyLou_20, Rahel_20, ErnieJ_24, Dietrick_18, Shaqnato_18, Sebata_23, Willis_22, Loanshark_21, Delylah_24, Bipolarisk_21, Halldule_18, Jezreel_20, Littleton_21, Jemmno_20, Ablatia_20, Cleatunium_18, ShiaLabeouf_20, Maturis_22, Duckfeet_20, Naval22_24, Grasshills_25, Nappy_23, BadAgartude_23, Khaleesi_21, JulietS_17, Shelob_24, Ngannou_20, Quasimodo_20, YoungMoneyMata_21, Mikro_20, Iota_19, Tortoise16_19, DeejaClivia_18, Essence_20, Lee7_23, Melpomini_20, NoodleTree_20, Erdmann_22, Pupusa_27, BananaFence_23, EasyJones_21, Momo_20, EmmaElysia_20, LolaVinca_24, Chargie21_20, DrPhinkDaddy_21, LinStu_23, DirtMonster_19, Phusco_20, Maguvora_28, Roots515_21, Spec_20,

SilverDipper_21, LRRHood_20, Audrick_22, Pio_24, StephanieG_22, McWolfish_21, Caravan_21, Rocha_20, Issimir_21, JayJay_24, Labradorite_21, Lukilu_16, Substance289_19, Guwapp_20, Pivoine_20, Morizzled23_20, SiwenD96_22, Demodog_20, Catera_20, Fludd_20, JPickles_20, SVoro_21, MikeLiesIn_22, Mangeria_24, Grungle_16, Wally_20, Shrimp_21, Cactojaque_19, Lethe_22, DTDevon_22, Napoleon13_20, Naija_20
• Track 9 : Colt_15, Cane17_15
• Track 10 : Alice_17, Bezza_16
• Track 11 : Shifa_19, HyRo_20, Moiqah_16, Moby_16
• Track 12 : Stubby_20, Pinkcreek_14
• Track 13 : Derek_21
• Track 14 : Specks_25
• Track 15 : QBert_20
• Track 16 : Flabslab_23
• Track 17 : BigCheese_68, Nicholasp3_68, Lynnae_70, ChengKai98_69, Zakai_69, Finemlucis_68, Lewan_69, Molivier_60, Hiraya_69, BobsGarage_68, Gardann_69, MkaliMitinis3_69, Rumpelstiltskin_67, Crossroads_68, Underpass_59, Sarshaun_69, Soap141_68, Itos_67, LilDestine_68, Vetrix_68, Wigglewiggle_68, Wilder_69, Hafay_70, Loadrie_67, Kahlid_68
• Track 18 : Faith1_68, DrSeegs_68, Breezona_68, OverPar_69, Miley16_68, Netyap_69, Winky_68
• Track 19 : Claus_68, Tourach_67, DanBing_69, DHan_70, Baoshan_67, ZhongYanYuan_67
• Track 20 : Bazzle_68
• Track 21 : Gabriela_65
• Track 22 : SoJulia_69
• Track 23 : Rossetti_70
• Track 24 : Sheng711_66, Chaser_64
• Track 25 : FarmResident_68, Quby_66
• Track 26 : Kropertea_65
• Track 27 : BrainDrainer_66
• Track 28 : Douge_66
• Track 29 : PYPDinur_64, Douzhi_66
• Track 30 : ChutneyChips_66
• Track 31 : Bromden_68
• Track 32 : DyoEdafos_70
• Track 33 : LilhomieP_42, PegLeg_43, Diminimus_44, SlimJimmy_42, Bongo_43, FreakyGoo_44, Auspice_43, TpudiCK_45, Bricole_43, IPhane7_43, KleverKiS_44, Izel_44, TyDawg_43, Glaske16_44, Dulcita_44, Skinny_44
• Track 34 : RoseMarie_49
• Track 35 : Reindeer_45
• Track 36 : Estes_52
• Track 37 : Rey_51
• Track 38 : GardenSalsa_52, MrMagoo_52
• Track 39 : Aziz_50, GenevaB15_50

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 18, it was called in 189 of the 261 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ablatia_20, Ading_20, Adlitam_20, Alice_17, Amataga_20, ArcherS7_20, Asterius_23, Astraea_22, Atlantean_20, Audrick_22, Ava3_22, Babyland_20, BackyardAgain_19, BadAgartude_23, BananaFence_23, Bangla1971_20, Basquiat_20, BeanWater_17, Belieber_19, Bezza_16, BigCity_25, Bigswole_26, Bipolarisk_21, Blackbrain_20, Blackdragon_18, BobaPhatt_21, Bonray_21, Bowman_22, Bread_22, Breeniome_21, Burrough_22, Bxz1_23, Cactojaque_19, Cali_23, Cane17_15, Capablanca_22, Caravan_21, Catera_20, Chargie21_20, CharlieB_22, ChaylaJr_20, ChickenPhender_20, Chomp_20, CindyLou_20, Cleatunium_18, Colt_15, Concombre_21, DTDevon_22, Daffodil_23, Dandelion_25, Darko_20, DeejaClivia_18, Delilah_21, Delylah_24, Demodog_20, Derek_21, Dessert_21, Dietrick_18, DirtMonster_19, Domi_16, DrPhinkDaddy_21, Drazdys_22, Duckfeet_20, ET08_18, EasyJones_21, EggyFarm_25, EmToTheThree_24, EmmaElysia_20, Erdmann_22, ErnieJ_24, Essence_20, Ewok_21, Fixie_19, Flabslab_23, Fludd_20, Fongie_21, FoxtrotP1_22, FrayBell_27, FudgeTart_22, Gabriel_21, Gamgam_20, Ghost_21, Gizmo_23, GlutenPhree_21, GoldenSnow_27, Grasshills_25, Grungle_16, Guwapp_20, Halldule_18, HyRo_20, I3_23, IkeLoa_17, InigoMontoya_22, InterFolia_27, Iota_19, Issimir_21, Izajani_22, JPickles_20, Janiyra_20, JayJay_24, Jaygup_20, Jedediah_21, Jemmno_20, Jessibeth14_21, Jezreel_20, JigglyPuff_22, JulietS_17, JustHall_20, Kamryn_20, Kboogie_21, Khaleesi_21, Koguma_18, LRRHood_20, Labradorite_21, Latch_20, Lee7_23, Lethe_22, LifeSavor_21, LinStu_23, Littleton_21, Loanshark_21, LolaVinca_24, LookingGlass_24, LordLeafolot_27, Lukilu_16, Lunareta_21, Maby2021_22, Maguvora_28, Mangeria_24, Matsumoto_20, Maturis_22, McGee_21, McWolfish_21, Megamind_21, Melpomini_20, MikeLiesIn_22, Mikro_20, MoMoMixon_23, Moby_16, Moiqah_16, Momo_20, Montpel_21, Morizzled23_20, Naija_20, Napoleon13_20, Nappy_23, Naval22_24, NedWong_22, Ngannou_20, Nidhogg_23, NoodleTree_20, Norm_21, NuevoMundo_25, OrediggerDelux_23, ParkTD_21, Patter_20, PharkleMinkus_27, Phlegm_22, Phox_21, Phusco_20, Pier_23, Pinkcreek_14, Pio_24, Pivoine_20, Pleione_23, Primadonna_17, Puhon_27, Pupusa_27, PurduePete_21, QBert_20, Quasimodo_20, Rabinovish_21, Rahel_20, Rizal_20, RoMag_16, Rocha_20, Ronan_17, Roots515_21, SVoro_21, Salacia_23, Sauce_23, ScottMcG_23, Sebata_23, Shaqnato_18, Shelob_24, ShiaLabeouf_20, Shifa_19, Shnickers_20, Shrimp_21, SilverDipper_21, SiwenD96_22, SmallFry_20, SoilZilla_20, Spec_20, Specks_25, Sprinklers_22, Spud_24, SrishMeg2525_21, StephanieG_22, StubbySaigey_21, Stubby_20, Substance289_19, Tainan_27, Teardrop_20, TinyTim_21, Tortoise16_19, Trinitium_20, Turret_20, Tyke_23, Wally_20, Willis_22, Yassified_19, YemiJoy2021_22, YoungMoneyMata_21, Yucca_21, Zalkecks_23, Zeenon_24, ZygoTaiga_22,

Genes that have the "Most Annotated" start but do not call it:
•

Genes that do not have the "Most Annotated" start:
• Astro_34, Auspice_43, Aziz_50, Baoshan_67, Bazzle_68, BigCheese_68, BobsGarage_68, Bongo_43, BrainDrainer_66, Breezona_68, Bricole_43, Bromden_68, Caitlin_34, Chaser_64, ChengKai98_69, ChutneyChips_66, Claus_68, Crossroads_68, DHan_70, DanBing_69, Danforth_33, Diminimus_44, Dixon_34, Douge_66, Douzhi_66, DrSeegs_68, Dulcita_44, DyoEdafos_70, Estes_52, Expelliarmus_33, Faith1_68, FarmResident_68, Finemlucis_68, FreakyGoo_44, Gabriela_65, Gardann_69, GardenSalsa_52, GenevaB15_50, Glaske16_44, Groundhog_33, Hafay_70, Hiraya_69, IPhane7_43, Itos_67, Izel_44, Kahlid_68,

KeAlii_55, KleverKiS_44, Kropertea_65, Lewan_69, LilDestine_68, LilhomieP_42, Loadrie_67, Lynnae_70, Miley16_68, MkaliMitinis3_69, Molivier_60, MrMagoo_52, NearlyHeadless_34, Netyap_69, Nicholasp3_68, OverPar_69, PYPDinur_64, PegLeg_43, Phillis_34, Quby_66, Reedo_57, Reindeer_45, Rey_51, Roary_34, RoseMarie_49, Rossetti_70, Rumpelstiltskin_67, Sarshaun_69, Sheng711_66, Skinny_44, SlimJimmy_42, Smeadley_34, Snek_58, SoJulia_69, Soap141_68, Stephig9_34, Tourach_67, TpudiCK_45, Tweety19_59, TyDawg_43, Underpass_59, Vetrix_68, Wigglewiggle_68, Wilder_69, Winky_68, Zakai_69, ZhongYanYuan_67,

Summary by start number:

Start 14:
• Found in 89 of 311 (28.6%) of genes in pham
• Manual Annotations of this start: 40 of 261
• Called 49.4% of time when present
• Phage (with cluster) where this start called: Astro_34 (A8), Auspice_43 (M1), Aziz_50 (M2), Bongo_43 (M1), Breezona_68 (L2), Bricole_43 (M1), Bromden_68 (L4), Caitlin_34 (A8), Danforth_33 (A8), Diminimus_44 (M1), Dixon_34 (A8), DrSeegs_68 (L2), Dulcita_44 (M1), Estes_52 (M2), Expelliarmus_33 (A8), Faith1_68 (L2), FreakyGoo_44 (M1), GardenSalsa_52 (M2), GenevaB15_50 (M2), Glaske16_44 (M1), Groundhog_33 (A8), IPhane7_43 (M1), Izel_44 (M1), KleverKiS_44 (M1), LilhomieP_42 (M1), Miley16_68 (L2), MrMagoo_52 (M2), NearlyHeadless_34 (A8), Netyap_69 (L2), OverPar_69 (L2), PegLeg_43 (M1), Phillis_34 (A8), Reindeer_45 (M1), Rey_51 (M2), Roary_34 (A8), RoseMarie_49 (M1), Skinny_44 (M1), SlimJimmy_42 (M1), Smeadley_34 (A8), SoJulia_69 (L2), Stephig9_34 (A8), TpudiCK_45 (M1), TyDawg_43 (M1), Winky_68 (L2),

Start 15:
• Found in 4 of 311 (1.3%) of genes in pham
• Manual Annotations of this start: 4 of 261
• Called 100.0% of time when present
• Phage (with cluster) where this start called: KeAlii_55 (AZ1), Reedo_57 (AZ1), Snek_58 (AZ3), Tweety19_59 (AZ3),

Start 18:
• Found in 218 of 311 (70.1%) of genes in pham
• Manual Annotations of this start: 189 of 261
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ablatia_20 (C1), Ading_20 (C1), Adlitam_20 (C1), Alice_17 (C1), Amataga_20 (C1), ArcherS7_20 (C1), Asterius_23 (C1), Astraea_22 (C1), Atlantean_20 (C1), Audrick_22 (C1), Ava3_22 (C1), Babyland_20 (C1), BackyardAgain_19 (C1), BadAgartude_23 (C1), BananaFence_23 (C1), Bangla1971_20 (C1), Basquiat_20 (C1), BeanWater_17 (C1), Belieber_19 (C1), Bezza_16 (C1), BigCity_25 (C1), Bigswole_26 (C1), Bipolarisk_21 (C1), Blackbrain_20 (C1), Blackdragon_18 (C1), BobaPhatt_21 (C1), Bonray_21 (C1), Bowman_22 (C1), Bread_22 (C1), Breeniome_21 (C1), Burrough_22 (C1), Bxz1_23 (C1), Cactojaque_19 (C1), Cali_23 (C1), Cane17_15 (C1), Capablanca_22 (C1), Caravan_21 (C1), Catera_20 (C1), Chargie21_20 (C1), CharlieB_22 (C1), ChaylaJr_20 (C1), ChickenPhender_20 (C1), Chomp_20 (C1), CindyLou_20 (C1), Cleatunium_18 (C1), Colt_15 (C1), Concombre_21 (C1), DTDevon_22 (C1), Daffodil_23 (C1), Dandelion_25 (C1), Darko_20 (C1), DeejaClivia_18 (C1), Delilah_21 (C1), Delylah_24 (C1), Demodog_20 (C1), Derek_21 (C1), Dessert_21 (C1), Dietrick_18 (C1), DirtMonster_19 (C1), Domi_16 (C1), DrPhinkDaddy_21 (C1),

Drazdys_22 (C1), Duckfeet_20 (C1), ET08_18 (C1), EasyJones_21 (C1), EggyFarm_25 (C1), EmToTheThree_24 (C1), EmmaElysia_20 (C1), Erdmann_22 (C1), ErnieJ_24 (C1), Essence_20 (C1), Ewok_21 (C1), Fixie_19 (C1), Flabslab_23 (C1), Fludd_20 (C1), Fongie_21 (C1), FoxtrotP1_22 (C1), FrayBell_27 (C1), FudgeTart_22 (C1), Gabriel_21 (C1), Gamgam_20 (C1), Ghost_21 (C1), Gizmo_23 (C1), GlutenPhree_21 (C1), GoldenSnow_27 (C1), Grasshills_25 (C1), Grungle_16 (C1), Guwapp_20 (C1), Halldule_18 (C1), HyRo_20 (C1), I3_23 (C1), IkeLoa_17 (C1), InigoMontoya_22 (C1), InterFolia_27 (C1), Iota_19 (C1), Issimir_21 (C1), Izajani_22 (C1), JPickles_20 (C1), Janiyra_20 (C1), JayJay_24 (C1), Jaygup_20 (C1), Jedediah_21 (C1), Jemmno_20 (C1), Jessibeth14_21 (C1), Jezreel_20 (C1), JigglyPuff_22 (C1), JulietS_17 (C1), JustHall_20 (C1), Kamryn_20 (C1), Kboogie_21 (C1), Khaleesi_21 (C1), Koguma_18 (C1), LRRHood_20 (C1), Labradorite_21 (C1), Latch_20 (C1), Lee7_23 (C1), Lethe_22 (C1), LifeSavor_21 (C1), LinStu_23 (C1), Littleton_21 (C1), Loanshark_21 (C1), LolaVinca_24 (C1), LookingGlass_24 (C1), LordLeafolot_27 (C1), Lukilu_16 (C1), Lunareta_21 (C1), Maby2021_22 (C1), Maguvora_28 (C1), Mangeria_24 (C1), Matsumoto_20 (C1), Maturis_22 (C1), McGee_21 (C1), McWolfish_21 (C1), Megamind_21 (C1), Melpomini_20 (C1), MikeLiesIn_22 (C1), Mikro_20 (C1), MoMoMixon_23 (C1), Moby_16 (C1), Moiqah_16 (C1), Momo_20 (C1), Montpel_21 (C1), Morizzled23_20 (C1), Naija_20 (C1), Napoleon13_20 (C1), Nappy_23 (C1), Naval22_24 (C1), NedWong_22 (C1), Ngannou_20 (C1), Nidhogg_23 (C1), NoodleTree_20 (C1), Norm_21 (C1), NuevoMundo_25 (C1), OrediggerDelux_23 (C1), ParkTD_21 (C1), Patter_20 (C1), PharkleMinkus_27 (C1), Phlegm_22 (C1), Phox_21 (C1), Phusco_20 (C1), Pier_23 (C1), Pinkcreek_14 (C1), Pio_24 (C1), Pivoine_20 (C1), Pleione_23 (C1), Primadonna_17 (C1), Puhon_27 (C1), Pupusa_27 (C1), PurduePete_21 (C1), QBert_20 (C1), Quasimodo_20 (C1), Rabinovish_21 (C1), Rahel_20 (C1), Rizal_20 (C1), RoMag_16 (C1), Rocha_20 (C1), Ronan_17 (C1), Roots515_21 (C1), SVoro_21 (C1), Salacia_23 (C1), Sauce_23 (C1), ScottMcG_23 (C1), Sebata_23 (C1), Shaqnato_18 (C1), Shelob_24 (C1), ShiaLabeouf_20 (C1), Shifa_19 (C1), Shnickers_20 (C1), Shrimp_21 (C1), SilverDipper_21 (C1), SiwenD96_22 (C1), SmallFry_20 (C1), SoilZilla_20 (C1), Spec_20 (C1), Specks_25 (C1), Sprinklers_22 (C1), Spud_24 (C1), SrishMeg2525_21 (C1), StephanieG_22 (C1), StubbySaigey_21 (C1), Stubby_20 (C1), Substance289_19 (C1), Tainan_27 (C1), Teardrop_20 (C1), TinyTim_21 (C1), Tortoise16_19 (C1), Trinitium_20 (C1), Turret_20 (C1), Tyke_23 (C1), Wally_20 (C1), Willis_22 (C1), Yassified_19 (C1), YemiJoy2021_22 (C1), YoungMoneyMata_21 (C1), Yucca_21 (C1), Zalkecks_23 (C1), Zeenon_24 (C1), ZygoTaiga_22 (C1),

Start 21:
• Found in 2 of 311 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 261
• Called 50.0% of time when present
• Phage (with cluster) where this start called: DyoEdafos_70 (L4),

Start 24:
• Found in 70 of 311 (22.5%) of genes in pham
• Manual Annotations of this start: 27 of 261
• Called 62.9% of time when present
• Phage (with cluster) where this start called: Baoshan_67 (L2), Bazzle_68 (L2), BigCheese_68 (L2), BobsGarage_68 (L2), BrainDrainer_66 (L4), Chaser_64 (L4), ChengKai98_69 (L2), ChutneyChips_66 (L4), Claus_68 (L2), Crossroads_68 (L2), DHan_70 (L2), DanBing_69 (L2), Douge_66 (L4), Douzhi_66 (L4), FarmResident_68 (L4), Finemlucis_68 (L2), Gabriela_65 (L2), Gardann_69 (L2), Hafay_70 (L2),

Hiraya_69 (L2), Itos_67 (L2), Kahlid_68 (L2), Kropertea_65 (L4), Lewan_69 (L2), LilDestine_68 (L2), Loadrie_67 (L2), Lynnae_70 (L2), MkaliMitinis3_69 (L2), Molivier_60 (L2), Nicholasp3_68 (L2), PYPDinur_64 (L4), Quby_66 (L4), Rossetti_70 (L2), Rumpelstiltskin_67 (L2), Sarshaun_69 (L2), Sheng711_66 (L4), Soap141_68 (L2), Tourach_67 (L2), Underpass_59 (L2), Vetrix_68 (L2), Wigglewiggle_68 (L2), Wilder_69 (L2), Zakai_69 (L2), ZhongYanYuan_67 (L2),

Summary by clusters:

There are 8 clusters represented in this pham: M2, L4, AZ1, L2, A8, M1, C1, AZ3,

Info for manual annotations of cluster A8:
•Start number 14 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster AZ1:
•Start number 15 was manually annotated 2 times for cluster AZ1.

Info for manual annotations of cluster AZ3:
•Start number 15 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster C1:
•Start number 18 was manually annotated 189 times for cluster C1.

Info for manual annotations of cluster L2:
•Start number 14 was manually annotated 7 times for cluster L2.
•Start number 24 was manually annotated 23 times for cluster L2.

Info for manual annotations of cluster L4:
•Start number 14 was manually annotated 1 time for cluster L4.
•Start number 21 was manually annotated 1 time for cluster L4.
•Start number 24 was manually annotated 4 times for cluster L4.

Info for manual annotations of cluster M1:
•Start number 14 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster M2:
•Start number 14 was manually annotated 6 times for cluster M2.

Gene Information:

Gene: Ablatia_20 Start: 6310, Stop: 6537, Start Num: 18
Candidate Starts for Ablatia_20:
(2, 5962), (7, 6151), (8, 6160), (Start: 18 @6310 has 189 MA's), (35, 6472), (37, 6487),

Gene: Ading_20 Start: 6287, Stop: 6514, Start Num: 18
Candidate Starts for Ading_20:
(2, 5939), (7, 6128), (8, 6137), (Start: 18 @6287 has 189 MA's), (35, 6449), (37, 6464),

Gene: Adlitam_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Adlitam_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Alice_17 Start: 6179, Stop: 6406, Start Num: 18
Candidate Starts for Alice_17:
(7, 6020), (8, 6029), (Start: 18 @6179 has 189 MA's), (35, 6341), (37, 6356),

Gene: Amataga_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Amataga_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: ArcherS7_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for ArcherS7_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Asterius_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Asterius_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Astraea_22 Start: 7025, Stop: 7252, Start Num: 18
Candidate Starts for Astraea_22:
(2, 6677), (7, 6866), (8, 6875), (Start: 18 @7025 has 189 MA's), (35, 7187), (37, 7202),

Gene: Astro_34 Start: 26685, Stop: 26479, Start Num: 14
Candidate Starts for Astro_34:
(12, 26727), (Start: 14 @26685 has 40 MA's), (32, 26571), (36, 26529), (39, 26490),

Gene: Atlantean_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Atlantean_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Audrick_22 Start: 6287, Stop: 6514, Start Num: 18
Candidate Starts for Audrick_22:
(2, 5939), (7, 6128), (8, 6137), (Start: 18 @6287 has 189 MA's), (35, 6449), (37, 6464),

Gene: Auspice_43 Start: 34226, Stop: 33996, Start Num: 14
Candidate Starts for Auspice_43:
(4, 34427), (6, 34370), (9, 34328), (10, 34292), (11, 34283), (Start: 14 @34226 has 40 MA's), (Start: 24 @34178 has 27 MA's), (30, 34106), (31, 34100), (36, 34049), (39, 34010),

Gene: Ava3_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Ava3_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Aziz_50 Start: 36169, Stop: 35948, Start Num: 14
Candidate Starts for Aziz_50:
(11, 36226), (Start: 14 @36169 has 40 MA's), (19, 36136), (20, 36130), (27, 36082), (32, 36046), (36, 36001),

Gene: Babyland_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Babyland_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: BackyardAgain_19 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for BackyardAgain_19:

(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: BadAgartude_23 Start: 7746, Stop: 7973, Start Num: 18
Candidate Starts for BadAgartude_23:
(2, 7398), (7, 7587), (8, 7596), (Start: 18 @7746 has 189 MA's), (35, 7908), (37, 7923),

Gene: BananaFence_23 Start: 7311, Stop: 7538, Start Num: 18
Candidate Starts for BananaFence_23:
(2, 6963), (7, 7152), (8, 7161), (Start: 18 @7311 has 189 MA's), (35, 7473), (37, 7488),

Gene: Bangla1971_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Bangla1971_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Baoshan_67 Start: 46667, Stop: 46849, Start Num: 24
Candidate Starts for Baoshan_67:
(13, 46601), (Start: 14 @46616 has 40 MA's), (17, 46634), (Start: 24 @46667 has 27 MA's), (35, 46781), (36, 46793),

Gene: Basquiat_20 Start: 6289, Stop: 6516, Start Num: 18
Candidate Starts for Basquiat_20:
(2, 5941), (7, 6130), (8, 6139), (Start: 18 @6289 has 189 MA's), (35, 6451), (37, 6466),

Gene: Bazzle_68 Start: 47062, Stop: 47247, Start Num: 24
Candidate Starts for Bazzle_68:
(13, 46996), (Start: 14 @47011 has 40 MA's), (17, 47029), (Start: 24 @47062 has 27 MA's), (36, 47191),

Gene: BeanWater_17 Start: 6728, Stop: 6955, Start Num: 18
Candidate Starts for BeanWater_17:
(2, 6380), (7, 6569), (8, 6578), (Start: 18 @6728 has 189 MA's), (35, 6890), (37, 6905),

Gene: Belieber_19 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Belieber_19:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Bezza_16 Start: 6179, Stop: 6406, Start Num: 18
Candidate Starts for Bezza_16:
(7, 6020), (8, 6029), (Start: 18 @6179 has 189 MA's), (35, 6341), (37, 6356),

Gene: BigCheese_68 Start: 46724, Stop: 46906, Start Num: 24
Candidate Starts for BigCheese_68:
(13, 46658), (Start: 14 @46673 has 40 MA's), (17, 46691), (Start: 24 @46724 has 27 MA's), (32, 46805), (34, 46826), (36, 46850),

Gene: BigCity_25 Start: 8678, Stop: 8905, Start Num: 18
Candidate Starts for BigCity_25:
(2, 8330), (7, 8519), (8, 8528), (Start: 18 @8678 has 189 MA's), (35, 8840), (37, 8855),

Gene: Bigswole_26 Start: 8741, Stop: 8968, Start Num: 18
Candidate Starts for Bigswole_26:
(2, 8393), (7, 8582), (8, 8591), (Start: 18 @8741 has 189 MA's), (35, 8903), (37, 8918),

Gene: Bipolarisk_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Bipolarisk_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Blackbrain_20 Start: 6349, Stop: 6576, Start Num: 18
Candidate Starts for Blackbrain_20:
(2, 6001), (7, 6190), (8, 6199), (Start: 18 @6349 has 189 MA's), (35, 6511), (37, 6526),

Gene: Blackdragon_18 Start: 6155, Stop: 6382, Start Num: 18
Candidate Starts for Blackdragon_18:
(2, 5807), (7, 5996), (8, 6005), (Start: 18 @6155 has 189 MA's), (35, 6317), (37, 6332),

Gene: BobaPhatt_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for BobaPhatt_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: BobsGarage_68 Start: 46724, Stop: 46906, Start Num: 24
Candidate Starts for BobsGarage_68:
(13, 46658), (Start: 14 @46673 has 40 MA's), (17, 46691), (Start: 24 @46724 has 27 MA's), (32, 46805), (34, 46826), (36, 46850),

Gene: Bongo_43 Start: 34226, Stop: 33996, Start Num: 14
Candidate Starts for Bongo_43:
(4, 34427), (6, 34370), (9, 34328), (10, 34292), (11, 34283), (Start: 14 @34226 has 40 MA's), (Start: 24 @34178 has 27 MA's), (30, 34106), (31, 34100), (36, 34049), (39, 34010),

Gene: Bonray_21 Start: 7412, Stop: 7639, Start Num: 18
Candidate Starts for Bonray_21:
(2, 7064), (7, 7253), (8, 7262), (Start: 18 @7412 has 189 MA's), (35, 7574), (37, 7589),

Gene: Bowman_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Bowman_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: BrainDrainer_66 Start: 45629, Stop: 45808, Start Num: 24
Candidate Starts for BrainDrainer_66:
(Start: 14 @45578 has 40 MA's), (Start: 24 @45629 has 27 MA's), (32, 45707),

Gene: Bread_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Bread_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Breeniome_21 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Breeniome_21:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Breezona_68 Start: 46673, Stop: 46906, Start Num: 14
Candidate Starts for Breezona_68:
(13, 46658), (Start: 14 @46673 has 40 MA's), (17, 46691), (Start: 24 @46724 has 27 MA's), (32, 46805), (34, 46826), (36, 46850),

Gene: Bricole_43 Start: 34212, Stop: 33982, Start Num: 14
Candidate Starts for Bricole_43:

(4, 34413), (6, 34356), (9, 34314), (10, 34278), (11, 34269), (Start: 14 @34212 has 40 MA's), (Start: 24 @34164 has 27 MA's), (30, 34092), (31, 34086), (36, 34035), (39, 33996),

Gene: Bromden_68 Start: 46608, Stop: 46841, Start Num: 14
Candidate Starts for Bromden_68:
(Start: 14 @46608 has 40 MA's), (Start: 24 @46659 has 27 MA's), (31, 46734), (32, 46737), (35, 46773), (36, 46785),

Gene: Burrough_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Burrough_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Bxz1_23 Start: 7851, Stop: 8078, Start Num: 18
Candidate Starts for Bxz1_23:
(2, 7503), (7, 7692), (8, 7701), (Start: 18 @7851 has 189 MA's), (35, 8013), (37, 8028),

Gene: Cactojaque_19 Start: 6238, Stop: 6465, Start Num: 18
Candidate Starts for Cactojaque_19:
(2, 5890), (7, 6079), (8, 6088), (Start: 18 @6238 has 189 MA's), (35, 6400), (37, 6415),

Gene: Caitlin_34 Start: 26678, Stop: 26472, Start Num: 14
Candidate Starts for Caitlin_34:
(12, 26720), (Start: 14 @26678 has 40 MA's), (32, 26564), (36, 26522), (39, 26483),

Gene: Cali_23 Start: 8722, Stop: 8949, Start Num: 18
Candidate Starts for Cali_23:
(2, 8374), (7, 8563), (8, 8572), (Start: 18 @8722 has 189 MA's), (35, 8884), (37, 8899),

Gene: Cane17_15 Start: 5760, Stop: 5987, Start Num: 18
Candidate Starts for Cane17_15:
(7, 5601), (8, 5610), (Start: 18 @5760 has 189 MA's), (35, 5922), (37, 5937),

Gene: Capablanca_22 Start: 7433, Stop: 7660, Start Num: 18
Candidate Starts for Capablanca_22:
(2, 7085), (7, 7274), (8, 7283), (Start: 18 @7433 has 189 MA's), (35, 7595), (37, 7610),

Gene: Caravan_21 Start: 6692, Stop: 6919, Start Num: 18
Candidate Starts for Caravan_21:
(2, 6344), (7, 6533), (8, 6542), (Start: 18 @6692 has 189 MA's), (35, 6854), (37, 6869),

Gene: Catera_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Catera_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Chargie21_20 Start: 6289, Stop: 6516, Start Num: 18
Candidate Starts for Chargie21_20:
(2, 5941), (7, 6130), (8, 6139), (Start: 18 @6289 has 189 MA's), (35, 6451), (37, 6466),

Gene: CharlieB_22 Start: 6687, Stop: 6914, Start Num: 18
Candidate Starts for CharlieB_22:
(2, 6339), (7, 6528), (8, 6537), (Start: 18 @6687 has 189 MA's), (35, 6849), (37, 6864),

Gene: Chaser_64 Start: 45401, Stop: 45577, Start Num: 24

Candidate Starts for Chaser_64:
(Start: 14 @45350 has 40 MA's), (Start: 24 @45401 has 27 MA's), (34, 45497),

Gene: ChaylaJr_20 Start: 6376, Stop: 6603, Start Num: 18
Candidate Starts for ChaylaJr_20:
(2, 6028), (7, 6217), (8, 6226), (Start: 18 @6376 has 189 MA's), (35, 6538), (37, 6553),

Gene: ChengKai98_69 Start: 46759, Stop: 46941, Start Num: 24
Candidate Starts for ChengKai98_69:
(13, 46693), (Start: 14 @46708 has 40 MA's), (17, 46726), (Start: 24 @46759 has 27 MA's), (32, 46840), (34, 46861), (36, 46885),

Gene: ChickenPhender_20 Start: 6334, Stop: 6561, Start Num: 18
Candidate Starts for ChickenPhender_20:
(2, 5986), (7, 6175), (8, 6184), (Start: 18 @6334 has 189 MA's), (35, 6496), (37, 6511),

Gene: Chomp_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Chomp_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: ChutneyChips_66 Start: 45657, Stop: 45836, Start Num: 24
Candidate Starts for ChutneyChips_66:
(Start: 14 @45606 has 40 MA's), (Start: 24 @45657 has 27 MA's), (31, 45729), (32, 45732), (35, 45768), (36, 45780),

Gene: CindyLou_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for CindyLou_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Claus_68 Start: 46805, Stop: 46987, Start Num: 24
Candidate Starts for Claus_68:
(13, 46739), (Start: 14 @46754 has 40 MA's), (17, 46772), (Start: 24 @46805 has 27 MA's), (35, 46919), (36, 46931),

Gene: Cleatunium_18 Start: 6580, Stop: 6807, Start Num: 18
Candidate Starts for Cleatunium_18:
(2, 6232), (7, 6421), (8, 6430), (Start: 18 @6580 has 189 MA's), (35, 6742), (37, 6757),

Gene: Colt_15 Start: 5766, Stop: 5993, Start Num: 18
Candidate Starts for Colt_15:
(7, 5607), (8, 5616), (Start: 18 @5766 has 189 MA's), (35, 5928), (37, 5943),

Gene: Concombre_21 Start: 7374, Stop: 7601, Start Num: 18
Candidate Starts for Concombre_21:
(2, 7026), (7, 7215), (8, 7224), (Start: 18 @7374 has 189 MA's), (35, 7536), (37, 7551),

Gene: Crossroads_68 Start: 46802, Stop: 46981, Start Num: 24
Candidate Starts for Crossroads_68:
(13, 46736), (Start: 14 @46751 has 40 MA's), (17, 46769), (Start: 24 @46802 has 27 MA's), (32, 46880), (34, 46901), (36, 46925),

Gene: DHan_70 Start: 46705, Stop: 46887, Start Num: 24
Candidate Starts for DHan_70:

(13, 46639), (Start: 14 @46654 has 40 MA's), (17, 46672), (Start: 24 @46705 has 27 MA's), (35, 46819), (36, 46831),

Gene: DTDevon_22 Start: 7472, Stop: 7699, Start Num: 18
Candidate Starts for DTDevon_22:
(2, 7124), (7, 7313), (8, 7322), (Start: 18 @7472 has 189 MA's), (35, 7634), (37, 7649),

Gene: Daffodil_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Daffodil_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: DanBing_69 Start: 46674, Stop: 46856, Start Num: 24
Candidate Starts for DanBing_69:
(13, 46608), (Start: 14 @46623 has 40 MA's), (17, 46641), (Start: 24 @46674 has 27 MA's), (35, 46788), (36, 46800),

Gene: Dandelion_25 Start: 8201, Stop: 8428, Start Num: 18
Candidate Starts for Dandelion_25:
(2, 7853), (7, 8042), (8, 8051), (Start: 18 @8201 has 189 MA's), (35, 8363), (37, 8378),

Gene: Danforth_33 Start: 26570, Stop: 26364, Start Num: 14
Candidate Starts for Danforth_33:
(12, 26612), (Start: 14 @26570 has 40 MA's), (32, 26456), (36, 26414), (39, 26375),

Gene: Darko_20 Start: 7280, Stop: 7507, Start Num: 18
Candidate Starts for Darko_20:
(2, 6932), (7, 7121), (8, 7130), (Start: 18 @7280 has 189 MA's), (35, 7442), (37, 7457),

Gene: DeejaClivia_18 Start: 6197, Stop: 6424, Start Num: 18
Candidate Starts for DeejaClivia_18:
(2, 5849), (7, 6038), (8, 6047), (Start: 18 @6197 has 189 MA's), (35, 6359), (37, 6374),

Gene: Delilah_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Delilah_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Delylah_24 Start: 7445, Stop: 7672, Start Num: 18
Candidate Starts for Delylah_24:
(2, 7097), (7, 7286), (8, 7295), (Start: 18 @7445 has 189 MA's), (35, 7607), (37, 7622),

Gene: Demodog_20 Start: 7374, Stop: 7601, Start Num: 18
Candidate Starts for Demodog_20:
(2, 7026), (7, 7215), (8, 7224), (Start: 18 @7374 has 189 MA's), (35, 7536), (37, 7551),

Gene: Derek_21 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Derek_21:
(7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Dessert_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Dessert_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Dietrick_18 Start: 6306, Stop: 6533, Start Num: 18

Candidate Starts for Dietrick_18:
(2, 5958), (7, 6147), (8, 6156), (Start: 18 @6306 has 189 MA's), (35, 6468), (37, 6483),

Gene: Diminimus_44 Start: 34225, Stop: 33995, Start Num: 14
Candidate Starts for Diminimus_44:
(4, 34426), (6, 34369), (9, 34327), (10, 34291), (11, 34282), (Start: 14 @34225 has 40 MA's), (Start: 24 @34177 has 27 MA's), (30, 34105), (31, 34099), (36, 34048), (39, 34009),

Gene: DirtMonster_19 Start: 7433, Stop: 7660, Start Num: 18
Candidate Starts for DirtMonster_19:
(2, 7085), (7, 7274), (8, 7283), (Start: 18 @7433 has 189 MA's), (35, 7595), (37, 7610),

Gene: Dixon_34 Start: 26679, Stop: 26473, Start Num: 14
Candidate Starts for Dixon_34:
(12, 26721), (Start: 14 @26679 has 40 MA's), (32, 26565), (36, 26523), (39, 26484),

Gene: Domi_16 Start: 6423, Stop: 6650, Start Num: 18
Candidate Starts for Domi_16:
(2, 6075), (7, 6264), (8, 6273), (Start: 18 @6423 has 189 MA's), (35, 6585), (37, 6600),

Gene: Douge_66 Start: 45395, Stop: 45577, Start Num: 24
Candidate Starts for Douge_66:
(Start: 14 @45344 has 40 MA's), (Start: 24 @45395 has 27 MA's), (32, 45473), (35, 45509), (36, 45521),

Gene: Douzhi_66 Start: 45448, Stop: 45627, Start Num: 24
Candidate Starts for Douzhi_66:
(Start: 14 @45397 has 40 MA's), (17, 45415), (Start: 24 @45448 has 27 MA's), (32, 45526),

Gene: DrPhinkDaddy_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for DrPhinkDaddy_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: DrSeegs_68 Start: 46673, Stop: 46906, Start Num: 14
Candidate Starts for DrSeegs_68:
(13, 46658), (Start: 14 @46673 has 40 MA's), (17, 46691), (Start: 24 @46724 has 27 MA's), (32, 46805), (34, 46826), (36, 46850),

Gene: Drazdys_22 Start: 7173, Stop: 7400, Start Num: 18
Candidate Starts for Drazdys_22:
(2, 6825), (7, 7014), (8, 7023), (Start: 18 @7173 has 189 MA's), (35, 7335), (37, 7350),

Gene: Duckfeet_20 Start: 6848, Stop: 7075, Start Num: 18
Candidate Starts for Duckfeet_20:
(2, 6500), (7, 6689), (8, 6698), (Start: 18 @6848 has 189 MA's), (35, 7010), (37, 7025),

Gene: Dulcita_44 Start: 34226, Stop: 33996, Start Num: 14
Candidate Starts for Dulcita_44:
(4, 34427), (6, 34370), (9, 34328), (10, 34292), (11, 34283), (Start: 14 @34226 has 40 MA's), (Start: 24 @34178 has 27 MA's), (30, 34106), (31, 34100), (36, 34049), (39, 34010),

Gene: DyoEdafos_70 Start: 45881, Stop: 46069, Start Num: 21
Candidate Starts for DyoEdafos_70:

(Start: 14 @45839 has 40 MA's), (Start: 21 @45881 has 1 MA's), (22, 45884), (32, 45968), (34, 45989),

Gene: ET08_18 Start: 7115, Stop: 7342, Start Num: 18
Candidate Starts for ET08_18:
(2, 6767), (7, 6956), (8, 6965), (Start: 18 @7115 has 189 MA's), (35, 7277), (37, 7292),

Gene: EasyJones_21 Start: 6289, Stop: 6516, Start Num: 18
Candidate Starts for EasyJones_21:
(2, 5941), (7, 6130), (8, 6139), (Start: 18 @6289 has 189 MA's), (35, 6451), (37, 6466),

Gene: EggyFarm_25 Start: 8678, Stop: 8905, Start Num: 18
Candidate Starts for EggyFarm_25:
(2, 8330), (7, 8519), (8, 8528), (Start: 18 @8678 has 189 MA's), (35, 8840), (37, 8855),

Gene: EmToTheThree_24 Start: 8832, Stop: 9059, Start Num: 18
Candidate Starts for EmToTheThree_24:
(2, 8484), (7, 8673), (8, 8682), (Start: 18 @8832 has 189 MA's), (35, 8994), (37, 9009),

Gene: EmmaElysia_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for EmmaElysia_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Erdmann_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Erdmann_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: ErnieJ_24 Start: 7479, Stop: 7706, Start Num: 18
Candidate Starts for ErnieJ_24:
(2, 7131), (7, 7320), (8, 7329), (Start: 18 @7479 has 189 MA's), (35, 7641), (37, 7656),

Gene: Essence_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Essence_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Estes_52 Start: 36435, Stop: 36214, Start Num: 14
Candidate Starts for Estes_52:
(Start: 14 @36435 has 40 MA's), (19, 36402), (20, 36396), (27, 36348), (32, 36312), (36, 36267), (39, 36228),

Gene: Ewok_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Ewok_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Expelliarmus_33 Start: 26556, Stop: 26350, Start Num: 14
Candidate Starts for Expelliarmus_33:
(12, 26598), (Start: 14 @26556 has 40 MA's), (32, 26442), (36, 26400), (39, 26361),

Gene: Faith1_68 Start: 46673, Stop: 46906, Start Num: 14
Candidate Starts for Faith1_68:
(13, 46658), (Start: 14 @46673 has 40 MA's), (17, 46691), (Start: 24 @46724 has 27 MA's), (32, 46805), (34, 46826), (36, 46850),

Gene: FarmResident_68 Start: 45404, Stop: 45583, Start Num: 24

Candidate Starts for FarmResident_68:
(Start: 14 @45353 has 40 MA's), (Start: 24 @45404 has 27 MA's), (32, 45482), (34, 45503),

Gene: Finemlucis_68 Start: 47045, Stop: 47227, Start Num: 24
Candidate Starts for Finemlucis_68:
(13, 46979), (Start: 14 @46994 has 40 MA's), (17, 47012), (Start: 24 @47045 has 27 MA's), (32, 47126), (34, 47147), (36, 47171),

Gene: Fixie_19 Start: 6289, Stop: 6516, Start Num: 18
Candidate Starts for Fixie_19:
(2, 5941), (7, 6130), (8, 6139), (Start: 18 @6289 has 189 MA's), (35, 6451), (37, 6466),

Gene: Flabslab_23 Start: 7578, Stop: 7805, Start Num: 18
Candidate Starts for Flabslab_23:
(1, 7137), (7, 7419), (8, 7428), (Start: 18 @7578 has 189 MA's), (35, 7740), (37, 7755),

Gene: Fludd_20 Start: 6290, Stop: 6517, Start Num: 18
Candidate Starts for Fludd_20:
(2, 5942), (7, 6131), (8, 6140), (Start: 18 @6290 has 189 MA's), (35, 6452), (37, 6467),

Gene: Fongie_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Fongie_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: FoxtrotP1_22 Start: 7977, Stop: 8204, Start Num: 18
Candidate Starts for FoxtrotP1_22:
(2, 7629), (7, 7818), (8, 7827), (Start: 18 @7977 has 189 MA's), (35, 8139), (37, 8154),

Gene: FrayBell_27 Start: 8998, Stop: 9225, Start Num: 18
Candidate Starts for FrayBell_27:
(2, 8650), (7, 8839), (8, 8848), (Start: 18 @8998 has 189 MA's), (35, 9160), (37, 9175),

Gene: FreakyGoo_44 Start: 34226, Stop: 33996, Start Num: 14
Candidate Starts for FreakyGoo_44:
(4, 34427), (6, 34370), (9, 34328), (10, 34292), (11, 34283), (Start: 14 @34226 has 40 MA's), (Start: 24 @34178 has 27 MA's), (30, 34106), (31, 34100), (36, 34049), (39, 34010),

Gene: FudgeTart_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for FudgeTart_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Gabriel_21 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Gabriel_21:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Gabriela_65 Start: 45174, Stop: 45353, Start Num: 24
Candidate Starts for Gabriela_65:
(13, 45108), (Start: 14 @45123 has 40 MA's), (17, 45141), (20, 45162), (Start: 24 @45174 has 27 MA's), (34, 45273), (36, 45297),

Gene: Gamgam_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Gamgam_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Gardann_69 Start: 46760, Stop: 46939, Start Num: 24
Candidate Starts for Gardann_69:
(13, 46694), (Start: 14 @46709 has 40 MA's), (17, 46727), (Start: 24 @46760 has 27 MA's), (32, 46838), (34, 46859), (36, 46883),

Gene: GardenSalsa_52 Start: 36533, Stop: 36312, Start Num: 14
Candidate Starts for GardenSalsa_52:
(10, 36599), (Start: 14 @36533 has 40 MA's), (19, 36500), (27, 36446), (32, 36410), (36, 36365), (39, 36326),

Gene: GenevaB15_50 Start: 36169, Stop: 35948, Start Num: 14
Candidate Starts for GenevaB15_50:
(11, 36226), (Start: 14 @36169 has 40 MA's), (19, 36136), (20, 36130), (27, 36082), (32, 36046), (36, 36001),

Gene: Ghost_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Ghost_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Gizmo_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Gizmo_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Glaske16_44 Start: 34225, Stop: 33995, Start Num: 14
Candidate Starts for Glaske16_44:
(4, 34426), (6, 34369), (9, 34327), (10, 34291), (11, 34282), (Start: 14 @34225 has 40 MA's), (Start: 24 @34177 has 27 MA's), (30, 34105), (31, 34099), (36, 34048), (39, 34009),

Gene: GlutenPhree_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for GlutenPhree_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: GoldenSnow_27 Start: 8997, Stop: 9224, Start Num: 18
Candidate Starts for GoldenSnow_27:
(2, 8649), (7, 8838), (8, 8847), (Start: 18 @8997 has 189 MA's), (35, 9159), (37, 9174),

Gene: Grasshills_25 Start: 8678, Stop: 8905, Start Num: 18
Candidate Starts for Grasshills_25:
(2, 8330), (7, 8519), (8, 8528), (Start: 18 @8678 has 189 MA's), (35, 8840), (37, 8855),

Gene: Groundhog_33 Start: 26650, Stop: 26444, Start Num: 14
Candidate Starts for Groundhog_33:
(12, 26692), (Start: 14 @26650 has 40 MA's), (32, 26536), (36, 26494), (39, 26455),

Gene: Grungle_16 Start: 5257, Stop: 5484, Start Num: 18
Candidate Starts for Grungle_16:
(2, 4909), (7, 5098), (8, 5107), (Start: 18 @5257 has 189 MA's), (35, 5419), (37, 5434),

Gene: Guwapp_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Guwapp_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Hafay_70 Start: 46828, Stop: 47010, Start Num: 24
Candidate Starts for Hafay_70:
(13, 46762), (Start: 14 @46777 has 40 MA's), (17, 46795), (Start: 24 @46828 has 27 MA's), (32, 46909), (34, 46930), (36, 46954),

Gene: Halldule_18 Start: 5900, Stop: 6127, Start Num: 18
Candidate Starts for Halldule_18:
(2, 5552), (7, 5741), (8, 5750), (Start: 18 @5900 has 189 MA's), (35, 6062), (37, 6077),

Gene: Hiraya_69 Start: 46794, Stop: 46976, Start Num: 24
Candidate Starts for Hiraya_69:
(13, 46728), (Start: 14 @46743 has 40 MA's), (17, 46761), (Start: 24 @46794 has 27 MA's), (32, 46875), (34, 46896), (36, 46920),

Gene: HyRo_20 Start: 7314, Stop: 7541, Start Num: 18
Candidate Starts for HyRo_20:
(7, 7155), (8, 7164), (Start: 18 @7314 has 189 MA's), (35, 7476), (37, 7491),

Gene: I3_23 Start: 7967, Stop: 8194, Start Num: 18
Candidate Starts for I3_23:
(2, 7619), (7, 7808), (8, 7817), (Start: 18 @7967 has 189 MA's), (35, 8129), (37, 8144),

Gene: IPhane7_43 Start: 34226, Stop: 33996, Start Num: 14
Candidate Starts for IPhane7_43:
(4, 34427), (6, 34370), (9, 34328), (10, 34292), (11, 34283), (Start: 14 @34226 has 40 MA's), (Start: 24 @34178 has 27 MA's), (30, 34106), (31, 34100), (36, 34049), (39, 34010),

Gene: IkeLoa_17 Start: 6434, Stop: 6661, Start Num: 18
Candidate Starts for IkeLoa_17:
(2, 6086), (7, 6275), (8, 6284), (Start: 18 @6434 has 189 MA's), (35, 6596), (37, 6611),

Gene: InigoMontoya_22 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for InigoMontoya_22:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: InterFolia_27 Start: 8995, Stop: 9222, Start Num: 18
Candidate Starts for InterFolia_27:
(2, 8647), (7, 8836), (8, 8845), (Start: 18 @8995 has 189 MA's), (35, 9157), (37, 9172),

Gene: Iota_19 Start: 7197, Stop: 7424, Start Num: 18
Candidate Starts for Iota_19:
(2, 6849), (7, 7038), (8, 7047), (Start: 18 @7197 has 189 MA's), (35, 7359), (37, 7374),

Gene: Issimir_21 Start: 7412, Stop: 7639, Start Num: 18
Candidate Starts for Issimir_21:
(2, 7064), (7, 7253), (8, 7262), (Start: 18 @7412 has 189 MA's), (35, 7574), (37, 7589),

Gene: Itos_67 Start: 45630, Stop: 45812, Start Num: 24
Candidate Starts for Itos_67:
(13, 45564), (Start: 14 @45579 has 40 MA's), (17, 45597), (Start: 24 @45630 has 27 MA's), (32, 45711), (34, 45732), (36, 45756),

Gene: Izajani_22 Start: 7418, Stop: 7645, Start Num: 18

Candidate Starts for Izajani_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Izel_44 Start: 34225, Stop: 33995, Start Num: 14
Candidate Starts for Izel_44:
(4, 34426), (6, 34369), (9, 34327), (10, 34291), (11, 34282), (Start: 14 @34225 has 40 MA's), (Start: 24 @34177 has 27 MA's), (30, 34105), (31, 34099), (36, 34048), (39, 34009),

Gene: JPickles_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for JPickles_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Janiyra_20 Start: 6287, Stop: 6514, Start Num: 18
Candidate Starts for Janiyra_20:
(2, 5939), (7, 6128), (8, 6137), (Start: 18 @6287 has 189 MA's), (35, 6449), (37, 6464),

Gene: JayJay_24 Start: 7395, Stop: 7622, Start Num: 18
Candidate Starts for JayJay_24:
(2, 7047), (7, 7236), (8, 7245), (Start: 18 @7395 has 189 MA's), (35, 7557), (37, 7572),

Gene: Jaygup_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Jaygup_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Jedediah_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Jedediah_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Jemmno_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Jemmno_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Jessibeth14_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Jessibeth14_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Jezreel_20 Start: 6635, Stop: 6862, Start Num: 18
Candidate Starts for Jezreel_20:
(2, 6287), (7, 6476), (8, 6485), (Start: 18 @6635 has 189 MA's), (35, 6797), (37, 6812),

Gene: JigglyPuff_22 Start: 7423, Stop: 7650, Start Num: 18
Candidate Starts for JigglyPuff_22:
(2, 7075), (7, 7264), (8, 7273), (Start: 18 @7423 has 189 MA's), (35, 7585), (37, 7600),

Gene: JulietS_17 Start: 5533, Stop: 5760, Start Num: 18
Candidate Starts for JulietS_17:
(2, 5185), (7, 5374), (8, 5383), (Start: 18 @5533 has 189 MA's), (35, 5695), (37, 5710),

Gene: JustHall_20 Start: 7303, Stop: 7530, Start Num: 18
Candidate Starts for JustHall_20:
(2, 6955), (7, 7144), (8, 7153), (Start: 18 @7303 has 189 MA's), (35, 7465), (37, 7480),

Gene: Kahlid_68 Start: 46730, Stop: 46912, Start Num: 24

Candidate Starts for Kahlid_68:
(13, 46664), (Start: 14 @46679 has 40 MA's), (17, 46697), (Start: 24 @46730 has 27 MA's), (32, 46811), (34, 46832), (36, 46856),

Gene: Kamryn_20 Start: 6638, Stop: 6865, Start Num: 18
Candidate Starts for Kamryn_20:
(2, 6290), (7, 6479), (8, 6488), (Start: 18 @6638 has 189 MA's), (35, 6800), (37, 6815),

Gene: Kboogie_21 Start: 6306, Stop: 6533, Start Num: 18
Candidate Starts for Kboogie_21:
(2, 5958), (7, 6147), (8, 6156), (Start: 18 @6306 has 189 MA's), (35, 6468), (37, 6483),

Gene: KeAlii_55 Start: 38215, Stop: 38442, Start Num: 15
Candidate Starts for KeAlii_55:
(Start: 15 @38215 has 4 MA's), (23, 38257), (29, 38329), (32, 38347), (33, 38356),

Gene: Khaleesi_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Khaleesi_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: KleverKiS_44 Start: 34206, Stop: 33976, Start Num: 14
Candidate Starts for KleverKiS_44:
(4, 34407), (6, 34350), (9, 34308), (10, 34272), (11, 34263), (Start: 14 @34206 has 40 MA's), (Start: 24 @34158 has 27 MA's), (30, 34086), (31, 34080), (36, 34029), (39, 33990),

Gene: Koguma_18 Start: 5900, Stop: 6127, Start Num: 18
Candidate Starts for Koguma_18:
(2, 5552), (7, 5741), (8, 5750), (Start: 18 @5900 has 189 MA's), (35, 6062), (37, 6077),

Gene: Kropertea_65 Start: 45555, Stop: 45731, Start Num: 24
Candidate Starts for Kropertea_65:
(Start: 14 @45504 has 40 MA's), (Start: 21 @45546 has 1 MA's), (Start: 24 @45555 has 27 MA's), (32, 45627), (35, 45663), (36, 45675),

Gene: LRRHood_20 Start: 7826, Stop: 8053, Start Num: 18
Candidate Starts for LRRHood_20:
(2, 7478), (7, 7667), (8, 7676), (Start: 18 @7826 has 189 MA's), (35, 7988), (37, 8003),

Gene: Labradorite_21 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Labradorite_21:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Latch_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Latch_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Lee7_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Lee7_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Lethe_22 Start: 7358, Stop: 7585, Start Num: 18
Candidate Starts for Lethe_22:
(2, 7010), (7, 7199), (8, 7208), (Start: 18 @7358 has 189 MA's), (35, 7520), (37, 7535),

Gene: Lewan_69 Start: 46784, Stop: 46963, Start Num: 24
Candidate Starts for Lewan_69:
(13, 46718), (Start: 14 @46733 has 40 MA's), (17, 46751), (Start: 24 @46784 has 27 MA's), (32, 46862), (34, 46883), (36, 46907),

Gene: LifeSavor_21 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for LifeSavor_21:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: LilDestine_68 Start: 46757, Stop: 46939, Start Num: 24
Candidate Starts for LilDestine_68:
(13, 46691), (Start: 14 @46706 has 40 MA's), (17, 46724), (Start: 24 @46757 has 27 MA's), (32, 46838), (34, 46859), (36, 46883),

Gene: LilhomieP_42 Start: 34226, Stop: 33996, Start Num: 14
Candidate Starts for LilhomieP_42:
(4, 34427), (6, 34370), (9, 34328), (10, 34292), (11, 34283), (Start: 14 @34226 has 40 MA's), (Start: 24 @34178 has 27 MA's), (30, 34106), (31, 34100), (36, 34049), (39, 34010),

Gene: LinStu_23 Start: 8009, Stop: 8236, Start Num: 18
Candidate Starts for LinStu_23:
(2, 7661), (7, 7850), (8, 7859), (Start: 18 @8009 has 189 MA's), (35, 8171), (37, 8186),

Gene: Littleton_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Littleton_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Loadrie_67 Start: 46812, Stop: 46991, Start Num: 24
Candidate Starts for Loadrie_67:
(13, 46746), (Start: 14 @46761 has 40 MA's), (17, 46779), (Start: 24 @46812 has 27 MA's), (32, 46890), (34, 46911), (36, 46935),

Gene: Loanshark_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Loanshark_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: LolaVinca_24 Start: 8101, Stop: 8328, Start Num: 18
Candidate Starts for LolaVinca_24:
(2, 7753), (7, 7942), (8, 7951), (Start: 18 @8101 has 189 MA's), (35, 8263), (37, 8278),

Gene: LookingGlass_24 Start: 7937, Stop: 8164, Start Num: 18
Candidate Starts for LookingGlass_24:
(2, 7589), (7, 7778), (8, 7787), (Start: 18 @7937 has 189 MA's), (35, 8099), (37, 8114),

Gene: LordLeafolot_27 Start: 8997, Stop: 9224, Start Num: 18
Candidate Starts for LordLeafolot_27:
(2, 8649), (7, 8838), (8, 8847), (Start: 18 @8997 has 189 MA's), (35, 9159), (37, 9174),

Gene: Lukilu_16 Start: 6250, Stop: 6477, Start Num: 18
Candidate Starts for Lukilu_16:
(2, 5902), (7, 6091), (8, 6100), (Start: 18 @6250 has 189 MA's), (35, 6412), (37, 6427),

Gene: Lunareta_21 Start: 7100, Stop: 7327, Start Num: 18
Candidate Starts for Lunareta_21:
(2, 6752), (7, 6941), (8, 6950), (Start: 18 @7100 has 189 MA's), (35, 7262), (37, 7277),

Gene: Lynnae_70 Start: 46755, Stop: 46937, Start Num: 24
Candidate Starts for Lynnae_70:
(13, 46689), (Start: 14 @46704 has 40 MA's), (17, 46722), (Start: 24 @46755 has 27 MA's), (32, 46836), (34, 46857), (36, 46881),

Gene: Maby2021_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Maby2021_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Maguvora_28 Start: 8999, Stop: 9226, Start Num: 18
Candidate Starts for Maguvora_28:
(2, 8651), (7, 8840), (8, 8849), (Start: 18 @8999 has 189 MA's), (35, 9161), (37, 9176),

Gene: Mangeria_24 Start: 7917, Stop: 8144, Start Num: 18
Candidate Starts for Mangeria_24:
(2, 7569), (7, 7758), (8, 7767), (Start: 18 @7917 has 189 MA's), (35, 8079), (37, 8094),

Gene: Matsumoto_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Matsumoto_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Maturis_22 Start: 7163, Stop: 7390, Start Num: 18
Candidate Starts for Maturis_22:
(2, 6815), (7, 7004), (8, 7013), (Start: 18 @7163 has 189 MA's), (35, 7325), (37, 7340),

Gene: McGee_21 Start: 6306, Stop: 6533, Start Num: 18
Candidate Starts for McGee_21:
(2, 5958), (7, 6147), (8, 6156), (Start: 18 @6306 has 189 MA's), (35, 6468), (37, 6483),

Gene: McWolfish_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for McWolfish_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Megamind_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Megamind_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Melpomini_20 Start: 6287, Stop: 6514, Start Num: 18
Candidate Starts for Melpomini_20:
(2, 5939), (7, 6128), (8, 6137), (Start: 18 @6287 has 189 MA's), (35, 6449), (37, 6464),

Gene: MikeLiesIn_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for MikeLiesIn_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Mikro_20 Start: 7634, Stop: 7861, Start Num: 18
Candidate Starts for Mikro_20:
(2, 7286), (7, 7475), (8, 7484), (Start: 18 @7634 has 189 MA's), (35, 7796), (37, 7811),

Gene: Miley16_68 Start: 46673, Stop: 46906, Start Num: 14
Candidate Starts for Miley16_68:
(13, 46658), (Start: 14 @46673 has 40 MA's), (17, 46691), (Start: 24 @46724 has 27 MA's), (32, 46805), (34, 46826), (36, 46850),

Gene: MkaliMitinis3_69 Start: 46796, Stop: 46975, Start Num: 24
Candidate Starts for MkaliMitinis3_69:
(13, 46730), (Start: 14 @46745 has 40 MA's), (17, 46763), (Start: 24 @46796 has 27 MA's), (32, 46874), (34, 46895), (36, 46919),

Gene: MoMoMixon_23 Start: 7741, Stop: 7968, Start Num: 18
Candidate Starts for MoMoMixon_23:
(2, 7393), (7, 7582), (8, 7591), (Start: 18 @7741 has 189 MA's), (35, 7903), (37, 7918),

Gene: Moby_16 Start: 4666, Stop: 4893, Start Num: 18
Candidate Starts for Moby_16:
(7, 4507), (8, 4516), (Start: 18 @4666 has 189 MA's), (35, 4828), (37, 4843),

Gene: Moiqah_16 Start: 4666, Stop: 4893, Start Num: 18
Candidate Starts for Moiqah_16:
(7, 4507), (8, 4516), (Start: 18 @4666 has 189 MA's), (35, 4828), (37, 4843),

Gene: Molivier_60 Start: 41786, Stop: 41965, Start Num: 24
Candidate Starts for Molivier_60:
(13, 41720), (Start: 14 @41735 has 40 MA's), (17, 41753), (Start: 24 @41786 has 27 MA's), (32, 41864), (34, 41885), (36, 41909),

Gene: Momo_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Momo_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Montpel_21 Start: 7100, Stop: 7327, Start Num: 18
Candidate Starts for Montpel_21:
(2, 6752), (7, 6941), (8, 6950), (Start: 18 @7100 has 189 MA's), (35, 7262), (37, 7277),

Gene: Morizzled23_20 Start: 6287, Stop: 6514, Start Num: 18
Candidate Starts for Morizzled23_20:
(2, 5939), (7, 6128), (8, 6137), (Start: 18 @6287 has 189 MA's), (35, 6449), (37, 6464),

Gene: MrMagoo_52 Start: 36533, Stop: 36312, Start Num: 14
Candidate Starts for MrMagoo_52:
(10, 36599), (Start: 14 @36533 has 40 MA's), (19, 36500), (27, 36446), (32, 36410), (36, 36365), (39, 36326),

Gene: Naija_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Naija_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Napoleon13_20 Start: 6306, Stop: 6533, Start Num: 18
Candidate Starts for Napoleon13_20:
(2, 5958), (7, 6147), (8, 6156), (Start: 18 @6306 has 189 MA's), (35, 6468), (37, 6483),

Gene: Nappy_23 Start: 7591, Stop: 7818, Start Num: 18

Candidate Starts for Nappy_23:
(2, 7243), (7, 7432), (8, 7441), (Start: 18 @7591 has 189 MA's), (35, 7753), (37, 7768),

Gene: Naval22_24 Start: 7741, Stop: 7968, Start Num: 18
Candidate Starts for Naval22_24:
(2, 7393), (7, 7582), (8, 7591), (Start: 18 @7741 has 189 MA's), (35, 7903), (37, 7918),

Gene: NearlyHeadless_34 Start: 26609, Stop: 26403, Start Num: 14
Candidate Starts for NearlyHeadless_34:
(12, 26651), (Start: 14 @26609 has 40 MA's), (32, 26495), (36, 26453), (39, 26414),

Gene: NedWong_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for NedWong_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Netyap_69 Start: 46674, Stop: 46907, Start Num: 14
Candidate Starts for Netyap_69:
(13, 46659), (Start: 14 @46674 has 40 MA's), (17, 46692), (Start: 24 @46725 has 27 MA's), (32, 46806), (34, 46827), (36, 46851),

Gene: Ngannou_20 Start: 6287, Stop: 6514, Start Num: 18
Candidate Starts for Ngannou_20:
(2, 5939), (7, 6128), (8, 6137), (Start: 18 @6287 has 189 MA's), (35, 6449), (37, 6464),

Gene: Nicholasp3_68 Start: 46760, Stop: 46939, Start Num: 24
Candidate Starts for Nicholasp3_68:
(13, 46694), (Start: 14 @46709 has 40 MA's), (17, 46727), (Start: 24 @46760 has 27 MA's), (32, 46838), (34, 46859), (36, 46883),

Gene: Nidhogg_23 Start: 7741, Stop: 7968, Start Num: 18
Candidate Starts for Nidhogg_23:
(2, 7393), (7, 7582), (8, 7591), (Start: 18 @7741 has 189 MA's), (35, 7903), (37, 7918),

Gene: NoodleTree_20 Start: 6635, Stop: 6862, Start Num: 18
Candidate Starts for NoodleTree_20:
(2, 6287), (7, 6476), (8, 6485), (Start: 18 @6635 has 189 MA's), (35, 6797), (37, 6812),

Gene: Norm_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Norm_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: NuevoMundo_25 Start: 8743, Stop: 8970, Start Num: 18
Candidate Starts for NuevoMundo_25:
(2, 8395), (7, 8584), (8, 8593), (Start: 18 @8743 has 189 MA's), (35, 8905), (37, 8920),

Gene: OrediggerDelux_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for OrediggerDelux_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: OverPar_69 Start: 46761, Stop: 46991, Start Num: 14
Candidate Starts for OverPar_69:
(13, 46746), (Start: 14 @46761 has 40 MA's), (17, 46779), (Start: 24 @46812 has 27 MA's), (32, 46890), (34, 46911), (36, 46935),

Gene: PYPDinur_64 Start: 45478, Stop: 45657, Start Num: 24
Candidate Starts for PYPDinur_64:
(Start: 14 @45427 has 40 MA's), (17, 45445), (Start: 24 @45478 has 27 MA's), (32, 45556),

Gene: ParkTD_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for ParkTD_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Patter_20 Start: 6325, Stop: 6552, Start Num: 18
Candidate Starts for Patter_20:
(2, 5977), (7, 6166), (8, 6175), (Start: 18 @6325 has 189 MA's), (35, 6487), (37, 6502),

Gene: PegLeg_43 Start: 34225, Stop: 33995, Start Num: 14
Candidate Starts for PegLeg_43:
(4, 34426), (6, 34369), (9, 34327), (10, 34291), (11, 34282), (Start: 14 @34225 has 40 MA's), (Start: 24 @34177 has 27 MA's), (30, 34105), (31, 34099), (36, 34048), (39, 34009),

Gene: PharkleMinkus_27 Start: 8998, Stop: 9225, Start Num: 18
Candidate Starts for PharkleMinkus_27:
(2, 8650), (7, 8839), (8, 8848), (Start: 18 @8998 has 189 MA's), (35, 9160), (37, 9175),

Gene: Phillis_34 Start: 26635, Stop: 26429, Start Num: 14
Candidate Starts for Phillis_34:
(12, 26677), (Start: 14 @26635 has 40 MA's), (32, 26521), (39, 26440),

Gene: Phlegm_22 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Phlegm_22:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Phox_21 Start: 7823, Stop: 8050, Start Num: 18
Candidate Starts for Phox_21:
(2, 7475), (7, 7664), (8, 7673), (Start: 18 @7823 has 189 MA's), (35, 7985), (37, 8000),

Gene: Phusco_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Phusco_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Pier_23 Start: 7306, Stop: 7533, Start Num: 18
Candidate Starts for Pier_23:
(2, 6958), (7, 7147), (8, 7156), (Start: 18 @7306 has 189 MA's), (35, 7468), (37, 7483),

Gene: Pinkcreek_14 Start: 5502, Stop: 5729, Start Num: 18
Candidate Starts for Pinkcreek_14:
(7, 5343), (8, 5352), (Start: 18 @5502 has 189 MA's), (35, 5664), (37, 5679),

Gene: Pio_24 Start: 8240, Stop: 8467, Start Num: 18
Candidate Starts for Pio_24:
(2, 7892), (7, 8081), (8, 8090), (Start: 18 @8240 has 189 MA's), (35, 8402), (37, 8417),

Gene: Pivoine_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Pivoine_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Pleione_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Pleione_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Primadonna_17 Start: 6779, Stop: 7006, Start Num: 18
Candidate Starts for Primadonna_17:
(2, 6431), (7, 6620), (8, 6629), (Start: 18 @6779 has 189 MA's), (35, 6941), (37, 6956),

Gene: Puhon_27 Start: 8997, Stop: 9224, Start Num: 18
Candidate Starts for Puhon_27:
(2, 8649), (7, 8838), (8, 8847), (Start: 18 @8997 has 189 MA's), (35, 9159), (37, 9174),

Gene: Pupusa_27 Start: 8997, Stop: 9224, Start Num: 18
Candidate Starts for Pupusa_27:
(2, 8649), (7, 8838), (8, 8847), (Start: 18 @8997 has 189 MA's), (35, 9159), (37, 9174),

Gene: PurduePete_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for PurduePete_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: QBert_20 Start: 7823, Stop: 8050, Start Num: 18
Candidate Starts for QBert_20:
(2, 7475), (7, 7664), (8, 7673), (Start: 18 @7823 has 189 MA's), (35, 7985), (37, 8000),

Gene: Quasimodo_20 Start: 7307, Stop: 7534, Start Num: 18
Candidate Starts for Quasimodo_20:
(2, 6959), (7, 7148), (8, 7157), (Start: 18 @7307 has 189 MA's), (35, 7469), (37, 7484),

Gene: Quby_66 Start: 45370, Stop: 45549, Start Num: 24
Candidate Starts for Quby_66:
(Start: 14 @45319 has 40 MA's), (Start: 24 @45370 has 27 MA's), (32, 45448), (34, 45469),

Gene: Rabinovish_21 Start: 8111, Stop: 8338, Start Num: 18
Candidate Starts for Rabinovish_21:
(2, 7763), (7, 7952), (8, 7961), (Start: 18 @8111 has 189 MA's), (35, 8273), (37, 8288),

Gene: Rahel_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Rahel_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Reedo_57 Start: 36918, Stop: 37124, Start Num: 15
Candidate Starts for Reedo_57:
(Start: 15 @36918 has 4 MA's), (26, 36981), (32, 37032), (38, 37089),

Gene: Reindeer_45 Start: 35434, Stop: 35216, Start Num: 14
Candidate Starts for Reindeer_45:
(Start: 14 @35434 has 40 MA's), (16, 35425), (22, 35392), (23, 35389), (30, 35326), (31, 35320), (35, 35281), (39, 35230),

Gene: Rey_51 Start: 36466, Stop: 36248, Start Num: 14
Candidate Starts for Rey_51:

(11, 36523), (Start: 14 @36466 has 40 MA's), (19, 36433), (20, 36427), (27, 36382), (32, 36346), (35, 36313), (36, 36301),

Gene: Rizal_20 Start: 6303, Stop: 6530, Start Num: 18
Candidate Starts for Rizal_20:
(2, 5955), (7, 6144), (8, 6153), (Start: 18 @6303 has 189 MA's), (35, 6465), (37, 6480),

Gene: RoMag_16 Start: 6385, Stop: 6612, Start Num: 18
Candidate Starts for RoMag_16:
(2, 6037), (7, 6226), (8, 6235), (Start: 18 @6385 has 189 MA's), (35, 6547), (37, 6562),

Gene: Roary_34 Start: 26555, Stop: 26349, Start Num: 14
Candidate Starts for Roary_34:
(12, 26597), (Start: 14 @26555 has 40 MA's), (32, 26441), (36, 26399), (39, 26360),

Gene: Rocha_20 Start: 6634, Stop: 6861, Start Num: 18
Candidate Starts for Rocha_20:
(2, 6286), (7, 6475), (8, 6484), (Start: 18 @6634 has 189 MA's), (35, 6796), (37, 6811),

Gene: Ronan_17 Start: 5234, Stop: 5461, Start Num: 18
Candidate Starts for Ronan_17:
(2, 4886), (7, 5075), (8, 5084), (Start: 18 @5234 has 189 MA's), (35, 5396), (37, 5411),

Gene: Roots515_21 Start: 7417, Stop: 7644, Start Num: 18
Candidate Starts for Roots515_21:
(2, 7069), (7, 7258), (8, 7267), (Start: 18 @7417 has 189 MA's), (35, 7579), (37, 7594),

Gene: RoseMarie_49 Start: 37891, Stop: 37664, Start Num: 14
Candidate Starts for RoseMarie_49:
(3, 38119), (4, 38092), (5, 38053), (6, 38035), (9, 37993), (10, 37957), (11, 37948), (Start: 14 @37891 has 40 MA's), (Start: 24 @37843 has 27 MA's), (30, 37774), (31, 37768), (36, 37717), (39, 37678),

Gene: Rossetti_70 Start: 47306, Stop: 47485, Start Num: 24
Candidate Starts for Rossetti_70:
(13, 47240), (Start: 14 @47255 has 40 MA's), (17, 47273), (Start: 24 @47306 has 27 MA's), (34, 47405), (36, 47429),

Gene: Rumpelstiltskin_67 Start: 46153, Stop: 46332, Start Num: 24
Candidate Starts for Rumpelstiltskin_67:
(13, 46087), (Start: 14 @46102 has 40 MA's), (17, 46120), (Start: 24 @46153 has 27 MA's), (32, 46231), (34, 46252), (36, 46276),

Gene: SVoro_21 Start: 7412, Stop: 7639, Start Num: 18
Candidate Starts for SVoro_21:
(2, 7064), (7, 7253), (8, 7262), (Start: 18 @7412 has 189 MA's), (35, 7574), (37, 7589),

Gene: Salacia_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Salacia_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Sarshaun_69 Start: 46820, Stop: 46999, Start Num: 24
Candidate Starts for Sarshaun_69:

(13, 46754), (Start: 14 @46769 has 40 MA's), (17, 46787), (Start: 24 @46820 has 27 MA's), (32, 46898), (34, 46919), (36, 46943),

Gene: Sauce_23 Start: 7786, Stop: 8013, Start Num: 18
Candidate Starts for Sauce_23:
(2, 7438), (7, 7627), (8, 7636), (Start: 18 @7786 has 189 MA's), (35, 7948), (37, 7963),

Gene: ScottMcG_23 Start: 7974, Stop: 8201, Start Num: 18
Candidate Starts for ScottMcG_23:
(2, 7626), (7, 7815), (8, 7824), (Start: 18 @7974 has 189 MA's), (35, 8136), (37, 8151),

Gene: Sebata_23 Start: 8009, Stop: 8236, Start Num: 18
Candidate Starts for Sebata_23:
(2, 7661), (7, 7850), (8, 7859), (Start: 18 @8009 has 189 MA's), (35, 8171), (37, 8186),

Gene: Shaqnato_18 Start: 6239, Stop: 6466, Start Num: 18
Candidate Starts for Shaqnato_18:
(2, 5891), (7, 6080), (8, 6089), (Start: 18 @6239 has 189 MA's), (35, 6401), (37, 6416),

Gene: Shelob_24 Start: 8547, Stop: 8774, Start Num: 18
Candidate Starts for Shelob_24:
(2, 8199), (7, 8388), (8, 8397), (Start: 18 @8547 has 189 MA's), (35, 8709), (37, 8724),

Gene: Sheng711_66 Start: 45459, Stop: 45641, Start Num: 24
Candidate Starts for Sheng711_66:
(Start: 14 @45408 has 40 MA's), (Start: 24 @45459 has 27 MA's), (34, 45561),

Gene: ShiaLabeouf_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for ShiaLabeouf_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Shifa_19 Start: 6745, Stop: 6972, Start Num: 18
Candidate Starts for Shifa_19:
(7, 6586), (8, 6595), (Start: 18 @6745 has 189 MA's), (35, 6907), (37, 6922),

Gene: Shnickers_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Shnickers_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Shrimp_21 Start: 7422, Stop: 7649, Start Num: 18
Candidate Starts for Shrimp_21:
(2, 7074), (7, 7263), (8, 7272), (Start: 18 @7422 has 189 MA's), (35, 7584), (37, 7599),

Gene: SilverDipper_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for SilverDipper_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: SiwenD96_22 Start: 7739, Stop: 7966, Start Num: 18
Candidate Starts for SiwenD96_22:
(2, 7391), (7, 7580), (8, 7589), (Start: 18 @7739 has 189 MA's), (35, 7901), (37, 7916),

Gene: Skinny_44 Start: 34655, Stop: 34425, Start Num: 14
Candidate Starts for Skinny_44:

(4, 34856), (6, 34799), (9, 34757), (10, 34721), (11, 34712), (Start: 14 @34655 has 40 MA's), (Start: 24 @34607 has 27 MA's), (30, 34535), (31, 34529), (36, 34478), (39, 34439),

Gene: SlimJimmy_42 Start: 34209, Stop: 33979, Start Num: 14
Candidate Starts for SlimJimmy_42:
(4, 34410), (6, 34353), (9, 34311), (10, 34275), (11, 34266), (Start: 14 @34209 has 40 MA's), (Start: 24 @34161 has 27 MA's), (30, 34089), (31, 34083), (36, 34032), (39, 33993),

Gene: SmallFry_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for SmallFry_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Smeadley_34 Start: 26678, Stop: 26472, Start Num: 14
Candidate Starts for Smeadley_34:
(12, 26720), (Start: 14 @26678 has 40 MA's), (28, 26591), (32, 26564), (36, 26522), (39, 26483),

Gene: Snek_58 Start: 37551, Stop: 37787, Start Num: 15
Candidate Starts for Snek_58:
(Start: 15 @37551 has 4 MA's), (25, 37605), (38, 37752),

Gene: SoJulia_69 Start: 46938, Stop: 47168, Start Num: 14
Candidate Starts for SoJulia_69:
(13, 46923), (Start: 14 @46938 has 40 MA's), (17, 46956), (20, 46977), (Start: 24 @46989 has 27 MA's), (34, 47088), (36, 47112),

Gene: Soap141_68 Start: 46820, Stop: 46999, Start Num: 24
Candidate Starts for Soap141_68:
(13, 46754), (Start: 14 @46769 has 40 MA's), (17, 46787), (Start: 24 @46820 has 27 MA's), (32, 46898), (34, 46919), (36, 46943),

Gene: SoilZilla_20 Start: 7373, Stop: 7600, Start Num: 18
Candidate Starts for SoilZilla_20:
(2, 7025), (7, 7214), (8, 7223), (Start: 18 @7373 has 189 MA's), (35, 7535), (37, 7550),

Gene: Spec_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Spec_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Specks_25 Start: 8178, Stop: 8405, Start Num: 18
Candidate Starts for Specks_25:
(2, 7830), (7, 8019), (8, 8028), (Start: 18 @8178 has 189 MA's), (25, 8214), (35, 8340), (37, 8355),

Gene: Sprinklers_22 Start: 7148, Stop: 7375, Start Num: 18
Candidate Starts for Sprinklers_22:
(2, 6800), (7, 6989), (8, 6998), (Start: 18 @7148 has 189 MA's), (35, 7310), (37, 7325),

Gene: Spud_24 Start: 8240, Stop: 8467, Start Num: 18
Candidate Starts for Spud_24:
(2, 7892), (7, 8081), (8, 8090), (Start: 18 @8240 has 189 MA's), (35, 8402), (37, 8417),

Gene: SrishMeg2525_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for SrishMeg2525_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: StephanieG_22 Start: 7331, Stop: 7558, Start Num: 18
Candidate Starts for StephanieG_22:
(2, 6983), (7, 7172), (8, 7181), (Start: 18 @7331 has 189 MA's), (35, 7493), (37, 7508),

Gene: Stephig9_34 Start: 26583, Stop: 26377, Start Num: 14
Candidate Starts for Stephig9_34:
(12, 26625), (Start: 14 @26583 has 40 MA's), (32, 26469), (36, 26427), (39, 26388),

Gene: Stubby_20 Start: 6925, Stop: 7152, Start Num: 18
Candidate Starts for Stubby_20:
(7, 6766), (8, 6775), (Start: 18 @6925 has 189 MA's), (35, 7087), (37, 7102),

Gene: StubbySaigey_21 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for StubbySaigey_21:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Substance289_19 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Substance289_19:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Tainan_27 Start: 8997, Stop: 9224, Start Num: 18
Candidate Starts for Tainan_27:
(2, 8649), (7, 8838), (8, 8847), (Start: 18 @8997 has 189 MA's), (35, 9159), (37, 9174),

Gene: Teardrop_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Teardrop_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: TinyTim_21 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for TinyTim_21:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Tortoise16_19 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Tortoise16_19:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Tourach_67 Start: 46806, Stop: 46988, Start Num: 24
Candidate Starts for Tourach_67:
(13, 46740), (Start: 14 @46755 has 40 MA's), (17, 46773), (Start: 24 @46806 has 27 MA's), (35, 46920), (36, 46932),

Gene: TpudiCK_45 Start: 34225, Stop: 33995, Start Num: 14
Candidate Starts for TpudiCK_45:
(4, 34426), (6, 34369), (9, 34327), (10, 34291), (11, 34282), (Start: 14 @34225 has 40 MA's), (Start: 24 @34177 has 27 MA's), (30, 34105), (31, 34099), (36, 34048), (39, 34009),

Gene: Trinitium_20 Start: 6304, Stop: 6531, Start Num: 18
Candidate Starts for Trinitium_20:
(2, 5956), (7, 6145), (8, 6154), (Start: 18 @6304 has 189 MA's), (35, 6466), (37, 6481),

Gene: Turret_20 Start: 6287, Stop: 6514, Start Num: 18
Candidate Starts for Turret_20:

(2, 5939), (7, 6128), (8, 6137), (Start: 18 @6287 has 189 MA's), (35, 6449), (37, 6464),

Gene: Tweety19_59 Start: 37551, Stop: 37787, Start Num: 15
Candidate Starts for Tweety19_59:
(Start: 15 @37551 has 4 MA's), (25, 37605), (38, 37752),

Gene: TyDawg_43 Start: 34226, Stop: 33996, Start Num: 14
Candidate Starts for TyDawg_43:
(4, 34427), (6, 34370), (9, 34328), (10, 34292), (11, 34283), (Start: 14 @34226 has 40 MA's), (Start: 24 @34178 has 27 MA's), (30, 34106), (31, 34100), (36, 34049), (39, 34010),

Gene: Tyke_23 Start: 7716, Stop: 7943, Start Num: 18
Candidate Starts for Tyke_23:
(2, 7368), (7, 7557), (8, 7566), (Start: 18 @7716 has 189 MA's), (35, 7878), (37, 7893),

Gene: Underpass_59 Start: 41796, Stop: 41975, Start Num: 24
Candidate Starts for Underpass_59:
(13, 41730), (Start: 14 @41745 has 40 MA's), (17, 41763), (Start: 24 @41796 has 27 MA's), (32, 41874), (34, 41895), (36, 41919),

Gene: Vetrix_68 Start: 46764, Stop: 46946, Start Num: 24
Candidate Starts for Vetrix_68:
(13, 46698), (Start: 14 @46713 has 40 MA's), (17, 46731), (Start: 24 @46764 has 27 MA's), (32, 46845), (34, 46866), (36, 46890),

Gene: Wally_20 Start: 6308, Stop: 6535, Start Num: 18
Candidate Starts for Wally_20:
(2, 5960), (7, 6149), (8, 6158), (Start: 18 @6308 has 189 MA's), (35, 6470), (37, 6485),

Gene: Wigglewiggle_68 Start: 46784, Stop: 46963, Start Num: 24
Candidate Starts for Wigglewiggle_68:
(13, 46718), (Start: 14 @46733 has 40 MA's), (17, 46751), (Start: 24 @46784 has 27 MA's), (32, 46862), (34, 46883), (36, 46907),

Gene: Wilder_69 Start: 46730, Stop: 46912, Start Num: 24
Candidate Starts for Wilder_69:
(13, 46664), (Start: 14 @46679 has 40 MA's), (17, 46697), (Start: 24 @46730 has 27 MA's), (32, 46811), (34, 46832), (36, 46856),

Gene: Willis_22 Start: 7313, Stop: 7540, Start Num: 18
Candidate Starts for Willis_22:
(2, 6965), (7, 7154), (8, 7163), (Start: 18 @7313 has 189 MA's), (35, 7475), (37, 7490),

Gene: Winky_68 Start: 46673, Stop: 46906, Start Num: 14
Candidate Starts for Winky_68:
(13, 46658), (Start: 14 @46673 has 40 MA's), (17, 46691), (Start: 24 @46724 has 27 MA's), (32, 46805), (34, 46826), (36, 46850),

Gene: Yassified_19 Start: 6311, Stop: 6538, Start Num: 18
Candidate Starts for Yassified_19:
(2, 5963), (7, 6152), (8, 6161), (Start: 18 @6311 has 189 MA's), (35, 6473), (37, 6488),

Gene: YemiJoy2021_22 Start: 7418, Stop: 7645, Start Num: 18

Candidate Starts for YemiJoy2021_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: YoungMoneyMata_21 Start: 6351, Stop: 6578, Start Num: 18
Candidate Starts for YoungMoneyMata_21:
(2, 6003), (7, 6192), (8, 6201), (Start: 18 @6351 has 189 MA's), (35, 6513), (37, 6528),

Gene: Yucca_21 Start: 7340, Stop: 7567, Start Num: 18
Candidate Starts for Yucca_21:
(2, 6992), (7, 7181), (8, 7190), (Start: 18 @7340 has 189 MA's), (35, 7502), (37, 7517),

Gene: Zakai_69 Start: 47050, Stop: 47232, Start Num: 24
Candidate Starts for Zakai_69:
(13, 46984), (Start: 14 @46999 has 40 MA's), (17, 47017), (Start: 24 @47050 has 27 MA's), (32, 47131), (34, 47152), (36, 47176),

Gene: Zalkecks_23 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for Zalkecks_23:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),

Gene: Zeenon_24 Start: 7419, Stop: 7646, Start Num: 18
Candidate Starts for Zeenon_24:
(2, 7071), (7, 7260), (8, 7269), (Start: 18 @7419 has 189 MA's), (35, 7581), (37, 7596),

Gene: ZhongYanYuan_67 Start: 46619, Stop: 46801, Start Num: 24
Candidate Starts for ZhongYanYuan_67:
(13, 46553), (Start: 14 @46568 has 40 MA's), (17, 46586), (Start: 24 @46619 has 27 MA's), (35, 46733), (36, 46745),

Gene: ZygoTaiga_22 Start: 7418, Stop: 7645, Start Num: 18
Candidate Starts for ZygoTaiga_22:
(2, 7070), (7, 7259), (8, 7268), (Start: 18 @7418 has 189 MA's), (35, 7580), (37, 7595),